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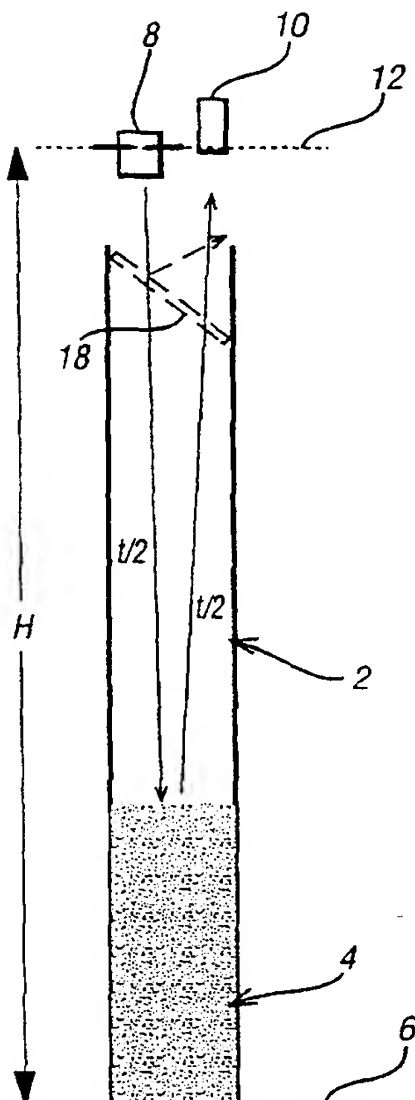
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[Continued on next page]

(54) Title: VENDING MACHINES AND COIN HANDLING APPARATUS



(57) Abstract: An electrical discharge produces an acoustic impulse, and a reflection of the impulse from the upper coin in a coin stack is sensed so that the level of the coin stack can be determined from the time taken for the reflection to be received. Alternatively, or additionally, the acoustic impulse can be used to detect coin jams, the presence and/or width of a coin store, the state of a coin routing gate or the quantity of a vendible product.



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# INTERNATIONAL SEARCH REPORT

In tional Application No

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A. CLASSIFICATION OF SUBJECT MATTER  
IPC 7 G07D1/00 G01S15/10

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 G07D G07F G01F G01S

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ, IBM-TDB, INSPEC, COMPENDEX

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 4 774 841 A (CHADWICK NEVILLE D) 4 October 1988 (1988-10-04) cited in the application	25,29-31
A	the whole document	1-24, 26-28, 32,33
X	DE 197 14 799 A (DICKE KRISTIAN DR ING) 15 October 1998 (1998-10-15) abstract column 5, line 35 -column 7, line 13	30,33
A	US 4 590 975 A (CREDLE JR WILLIAM S) 27 May 1986 (1986-05-27) abstract column 5, line 55 -column 6, line 13	25-33

☐ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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# INTERNATIONAL SEARCH REPORT

Information on patent family members

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